

In the Specification

Amend the specification as follows:

[0005] Other PSMs for example, embedded attenuated phase shift masks (EAPSMs), utilize opaque layers of chromium to mask non-critical areas outside of the critical structure areas. As used herein, the term critical structures includes lines, contacts and other active regions to be exposed in a resist layer, subsequently developed, etched and/or deposited on the wafer to form an integrated circuit device or portion thereof. These phase shifting image segments typically impart a 180° phase shift of the polarization of the energy beam, e.g., visible or ultraviolet light. In manufacturing an EAPSM, a first exposure is typically made to create the phase shifting and opaque image segments on the substrate corresponding to areas of the critical structures, and a second exposure is made to selectively remove the opaque material in the area of critical structures but to leave the opaque material in the area surrounding the area of critical structures.

[0013] The method may further include identifying and storing the single frame exposure mask for future use with the EAPSM. Where the EAPSM needs to be reworked, is damaged or is redesigned, the method may further ~~including~~ include using the single frame exposure mask to repair or remanufacture the EAPSM.

[0022] Fig. 6 is a cross-sectional elevational view of the completed ~~second level exposure of the EAPSM of Fig. 1.~~

[0028] In fabricating the EAPSM mask in accordance with the present invention, a second resist layer 28 is applied over the etched opaque and phase shifting image segments created by the first exposure on EAPSM substrate base 20, and mask 30 is secured thereover (Fig. 4). Energy source 34, utilizing visible light, UV or other energy beams 36, simultaneously exposes resist layer portion 28a corresponding to the critical area of the mask. After exposure, the second resist layer 28 is developed and exposed area 28 is removed, to arrive at the structure shown in Fig. 5. While resist layer portions 28b and 28c remain over the areas outside of the critical structure area, ~~and all~~ all resist is removed from within these portions. The remaining opaque layer regions 24a, 24b and 25c within the critical area are then etched away, and the remaining second level resist is removed, which results in the structure shown in Fig. 6. In the finished EAPSM mask depicted, the unwanted opaque layer 24 segments have been removed from within the critical area C, leaving only the chromium layer segments 24d, 24e in the non-critical areas outside of the critical area. The remaining phase shifting image segments 22a, 22b and 22c may now be used in connection with transparent substrate base 20 to impart the desired phase shifting pattern, using a photolithographic process, in the active area of integrated circuit device wafer substrate.